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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,899	10/12/2001	Douglas J. Goetz	D6379	1164

7590

04/04/2002

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EXAMINER

BELYAVSKIY, MICHAEL A

ART UNIT	PAPER NUMBER
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1644

DATE MAILED: 04/04/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/975,899	GOETZ ET AL.	
	Examiner	Art Unit	
	Michail A Belyavskiy	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-7 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input checked="" type="checkbox"/> Other: <i>Restriction/Election Fax</i> |

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DETAILED ACTION

Restriction Requirement

1. Please Note: In an effort to enhance communication with our customers and reduce processing time, Group 1640 is running a Fax Response Pilot for Written Restriction Requirements. A dedicated Fax machine is in place to receive your responses. The Fax number is 703-308-4315. A Fax cover sheet is attached to this Office Action for your convenience. We encourage your participation in this Pilot program. If you have any questions or suggestions please contact Paula Hutzell, Ph.D., Supervisory Patent Examiner at Paula.Hutzell@uspto.gov or 703-308-4310. Thank you in advance for allowing us to enhance our customer service. Please limit the use of this dedicated Fax number to responses to Written Restrictions.

2. The following is noted:

A). Claim 1 recites a "cellular adhesion molecules" which binds to the biomolecular carrier. The specification discloses that such molecules may include ICAM-1, E-selectin, P-selectin and VCAM-1 (see page 20 of the specification as-filed). These cellular adhesion molecules are structurally distinct. These structurally distinct molecules are subject to restriction, rather than election of species, therefore the restriction has been set forth for each as separate group, irrespective of the format of the claims

B) Claim 2, recites targeting molecules that bind to a cellular adhesion molecule. The specification discloses that such molecules may include antibody, antibody fragment and ligands (see page 20 of the specification as-filed). These cellular adhesion molecules are structurally distinct. These structurally distinct molecules are subject to restriction, rather than election of species, therefore the restriction has been set forth for each as separate group, irrespective of the format of the claims

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2. Restriction to one of the following inventions is required under 35 U.S.C. § 121:

- I. Claims 1-5, drawn to a biomolecular carrier, that bind to ICAM, wherein targeting molecule include antibody or antibody fragment, that bind ICAM, classified in Class 424, subclass 450.
- II. Claims 1-5, drawn to a biomolecular carrier, that bind to E-selectin, wherein targeting molecule include antibody or antibody fragment, that bind E-selectin, classified in Class 424, subclass 450.
- III. Claims 1-5, drawn to a biomolecular carrier, that bind to P-selectin, wherein targeting molecule include antibody or antibody fragment, that bind P-selectin, classified in Class 424, subclass 450.
- IV. Claims 1-5, drawn to a biomolecular carrier, that bind to VCAM wherein targeting molecule include antibody or antibody fragment, that bind VCAM, classified in Class 424, subclass 450.
- V. Claims 1-5, drawn to a biomolecular carrier, that bind to ICAM, wherein targeting molecule include ligands, that bind ICAM, classified in Class 424, subclass 450.
- VI. Claims 1-5, drawn to a biomolecular carrier, that bind to E-selectin, wherein targeting molecule include ligands, that bind E-selectin, classified in Class 424, subclass 450.
- VII. Claims 1-5, drawn to a biomolecular carrier, that bind to P-selectin, wherein targeting molecule include ligands, that bind P-selectin, classified in Class 424, subclass 450.
- VIII. Claims 1-5, drawn to a biomolecular carrier, that bind to VCAM wherein targeting molecule include ligands, that bind VCAM, classified in Class 424, subclass 450.
- IX. Claims 6-7, drawn to a method of treating a pathophysiological state, comprising administering biomolecular carrier, that bind to ICAM, wherein targeting molecule include antibody or antibody fragment, that bind ICAM, Class 424, subclass 130.1.
- X. Claims 6-7, drawn to a method of treating a pathophysiological state, comprising administering a biomolecular carrier, that bind to P-selectin, wherein targeting molecule include antibody or antibody fragment, that bind P-selectin classified in Class 424, subclass 130.1
- XI. Claims 6-7, drawn to a method of treating a pathophysiological state, comprising administering a biomolecular carrier, that bind to E-selectin, wherein targeting molecule include antibody or antibody fragment, that bind E-selectin, Class 424, subclass 130.1

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- XII Claims 6-7, drawn to a method of treating a pathophysiological state, comprising administering a biomolecular carrier, that bind to VCAM wherein targeting molecule include antibody or antibody fragment, that bind VCAM, Class 424, subclass 130.1.
- XIII Claims 6-7, drawn to a method of treating a pathophysiological state, comprising administering a biomolecular carrier, that bind to ICAM, wherein targeting molecule include ligands, that bind ICAM, Class 424, subclass 184.1.
- XIV Claims 6-7, drawn to a method of treating a pathophysiological state, comprising administering a biomolecular carrier, that bind to E-selectin, wherein targeting molecule include ligands, that bind E-selectin, Class 424, subclass 184.1.
- XV Claims 6-7, drawn to a method of treating a pathophysiological state, comprising administering a biomolecular carrier, that bind to P-selectin, wherein targeting molecule include ligands, that bind P-selectin, Class 424, subclass 184.1.
- XVI Claims 6-7, drawn to a method of treating a pathophysiological state, comprising administering a biomolecular carrier, that bind to VCAM wherein targeting molecule include ligands, that bind VCAM, Class 424, subclass 184.1.

3. Groups I-VIII and IX – XVI are related as product and process of using. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the biomolecular carrier of Groups I-VIII can be used in *in vitro* studies.

4. These inventions are distinct for the reasons given above. In addition, they have acquired a separate status in the art as shown by different and/or recognized divergent subject matter. Further, even though in some cases the classification is shared, a different field of search would be required based upon the structurally distinct products recited and the various methods of use comprising distinct method steps. Therefore restriction for examination purposes as indicated is proper.

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Species Election.

6. This application contains claims directed to the following patentably distinct species of the claimed Invention I-XVI: wherein carrier is made from the substance selected from the group recited in the claim 3.

These species are distinct because their structure physicochemical properties are different and a person of ordinary skill in the art would not envision one in view of the other.

The examination of species would require different searches in the scientific literature and would involve the consideration of separate issues in determining patentability.

Applicant is required under 35 U.S.C. § 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

7. This application contains claims directed to the following patentably distinct species of the claimed Invention IX-XVI: wherein pathophysiological state is selected from the group recited in the claim 7.

These species are distinct because the pathological conditions differ in etiologies and therapeutic endpoints; thus each condition represents patentably distinct subject matter

The examination of species would require different searches in the scientific literature and would involve the consideration of separate issues in determining patentability.

Applicant is required under 35 U.S.C. § 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable

8. Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 C.F.R. § 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. M.P.E.P. § 809.02(a).

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Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.

9. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michail Belyavskiy whose telephone number is (703) 308-4232. The examiner can normally be reached Monday through Friday from 9:00 AM to 5:30 PM. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (703) 308-3973. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center telephone number is (703) 305-3014.

Michail Belyavskiy, Ph.D.
Patent Examiner
Technology Center 1600
March 28, 2002

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